

Perspective of zero-field ODMR to study nano-biological systems

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Abstract

This work presents an introduction, a short literature review as well as our recent optical and high field magnetic resonance experiments with regard to the applications of nitrogen paramagnetic defects in (nano)diamonds for biomedical related research. The perspectives of combination of optical and magnetic resonance (high field electron paramagnetic resonance) spectroscopic methods for the sensitive spatially resolved screening of electrical and magnetic gradients in biological tissues on the nanoscale level are discussed. © Published under licence by IOP Publishing Ltd.

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